Claim(s)

1. A transmit power controlling method in a code division multiple access communication system comprising a radio base station and a mobile station, characterized in that said radio base station transmits a transmit power controlling signal for controlling transmit power of the mobile station, and that said mobile station generates a likelihood of said transmit power controlling signal on the basis of the received transmit power controlling signal and the receiving quality to generate a variation amount of the transmit power on the basis of said likelihood, so that the transmit power of the mobile station would be controlled on the basis of the variation amount.

2. The transmit power controlling method in a code division multiple access communication system according to Claim 1, characterized in that said likelihood is generated with a perch receiving quality of a signal transmitted from said radio base station also taken into account.

3. The transmit power controlling method in a code division multiple access communication system according to

Claim 1, characterized in that the receiving quality of a perch signal transmitted from said radio base station is compared with the receiving quality of a transmit power controlling signal so that it is determined that a call is cut off when only one of the receiving qualities is deteriorated and it is determined that a receiving condition is no longer proper when the both of the receiving qualities are deteriorated, and in that the likelihood is generated on the basis of a result of the determination.

4. The transmit power controlling method in a code division multiple access communication system according to Claim 1, characterized in that, when an absolute value of the likelihood of said transmit power controlling signal is large, an upper limit value and a lower limit value of the transmit power of a mobile station are updated and maintained so that the transmit power of said mobile station is limited between said upper limit value and said lower limit value.

5. The transmit power controlling method in a code division multiple access communication system according to Claim 1, characterized in that an average value of the transmit power of a mobile station is generated, and that the transmit power of said mobile station is switched on

the basis of the size of said likelihood so as to be either said generated average transmit power of the mobile station or transmit power of the mobile station that is generated on the basis of said likelihood.

6. The transmit power controlling method in a code division multiple access communication system according to Claim 1, characterized in that open loop transmit power is generated on the basis of the receiving quality or the receiving power of another channel different from a channel being used, and that the transmit power of said mobile station is switched on the basis of the size of said likelihood so as to be said generated open loop transmit power or transmit power of the mobile station that is generated on the basis of said likelihood.

7. The transmit power controlling method in a code division multiple access communication system according to Claim 1, characterized in that said transmit power controlling signal is a signal comprising two values, and that said likelihood is calculated so that an absolute value of the likelihood would be large when the receiving quality is good and so that an absolute value of the likelihood would be small when the receiving quality is bad.

8. The transmit power controlling method in a code division multiple access communication system according to Claim 7, characterized in that the transmit power is increased when said likelihood is a first reference value or more, that the transmit power is maintained when said likelihood is less than said first reference value and a second reference value or more, and that the transmit power is decreased when said likelihood is less than said second reference value.

9. The transmit power controlling method in a code division multiple access communication system according to Claim 7, characterized in that the transmit power is increased when said likelihood is said first reference value or more, that the transmit power is toggle-controlled when said likelihood is less than said first reference value and said second reference value or more, and that the transmit power is decreased when said likelihood is less than said second reference value.

10. The transmit power controlling method in a code division multiple access communication system according to Claim 7, characterized in that the transmit power is increased when said likelihood is said first reference value or more, that a variation amount of the transmit power is

made to be the power corresponding to said likelihood when said likelihood is less than said first reference value and said second reference value or more, and that the transmit power is decreased when said likelihood is less than said second reference value.

11. A transmit power controlling method in a code division multiple access communication system comprising a radio base station and a mobile station, characterized in that said radio base station measures SIR for every said mobile station to compare each of said measured SIRs with a target SIR given in advance, generates a transmit power controlling signal for decreasing the transmit power when said SIR is the target SIR or more or when said radio base station has stopped a receiving operation for said mobile station, generates a transmit power controlling signal for increasing the transmit power when said SIR is less than the target SIR, and transmits said generated transmit power controlling signal to the mobile station.

12. A mobile station characterized by comprising: receiving means for receiving transmit power controlling information transmitted by a radio base station; measuring means for measuring the receiving quality of a wave transmitted by said radio base station; likelihood

generating means for generating a likelihood of said transmit power controlling information on the basis of the transmit power controlling information received by said receiving means and the receiving quality measured by said measuring means; variation amount generating means for generating a variation amount of the transmit power on the basis of the likelihood generated by said likelihood generating means; and controlling means for controlling the transmit power of a mobile station on the basis of the variation amount generated by said variation amount generating means.

13. The mobile radio station according to Claim 12, characterized by further comprising perch receiving quality measuring means for measuring the receiving quality of a perch signal transmitted by said radio base station, wherein said likelihood generating means generates a likelihood with the receiving quality measured by said perch receiving quality measuring means taken into a consideration.

14. A code division multiple access communication system comprising a radio base station and a mobile station, characterized in that

said radio base station comprises: transmit power controlling information generating means for generating

transmit power controlling information for controlling the transmit power of a mobile station; and transmitting means for transmitting the transmit power controlling information generated by said transmit power controlling information generating means, and that

said mobile station comprises: receiving means for receiving the transmit power controlling information transmitted by said transmitting means; measuring means for measuring the receiving quality of a wave transmitted by said radio base station; likelihood generating means for generating a likelihood of said transmit power controlling information on the basis of the transmit power controlling information received by said receiving means and of the receiving quality measured by said measuring means; variation amount generating means for generating a variation amount of the transmit power on the basis of the likelihood generated by said likelihood generating means; and controlling means for controlling the transmit power of a mobile station on the basis of the variation amount generated by said variation amount generating means.

15. A radio base station controlling transmit power of a mobile station characterized by comprising:

signal quality measuring means for measuring signal quality of said mobile station;

comparing means for comparing the signal quality measured by said signal quality measuring means with a predetermined value;

generating means for generating, as a result of comparison in said comparing means, transmit power controlling information for decreasing said transmit power when said signal quality is said predetermined value or more and for generating transmit power controlling information for increasing said transmit power when said signal quality is less than said predetermined value; and

transmitting means for transmitting to said mobile station the transmit power controlling signal generated by said generating means.

16. The radio base station according to Claim 15, characterized in that said signal quality is SIR.

17. A radio base station controlling transmit power of a mobile station characterized by comprising:

receiving means for receiving a channel transmitted by said mobile station;

controlling means for controlling a receiving operation of said receiving means;

generating means for generating instructing information for giving an instruction to decrease the

transmit power of said mobile station at the time when said controlling means stops the receiving operation of said receiving means; and

transmitting means for transmitting to said mobile station the instructing information generated by said generating means.

18. A radio base station controlling transmit power of a mobile station characterized by comprising:

receiving means for receiving a channel transmitted by said mobile station;

controlling means for controlling a receiving operation of said receiving means;

generating means for generating instructing information for giving an instruction to decrease the transmit power of said mobile station when said controlling means tries to stop the receiving operation of said receiving means; and

transmitting means for transmitting to said mobile station the instructing information generated by said generating means before said receiving operation is stopped.